

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B23K11/04 B23K11/24 G05B13/04 B23K11/25

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B23K G05B B21B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 612 811 A (FAV.S. LIFSHITS ET AL) 12 October 1971 (1971-10-12)	1
Y	column 2, line 35 - column 4, line 71; figure	2,4,5,7, 9-11
Y	EP 1 044 753 A (MATSUSHITA ELECTRIC IND CO LTD) 18 October 2000 (2000-10-18) paragraphs '0070! - '0088!; figures 6,7	2,4,5,7, 9-11
Y	EP 1 193 020 A (COCKERILL RECH & DEV) 3 April 2002 (2002-04-03) claims	5,9
Y	US 4 940 876 A (BONDARUK ANDREI V ET AL) 10 July 1990 (1990-07-10) cited in the application the whole document	4

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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

Z document member of the same patent family

Date of the actual completion of the international search

11 August 2004

Date of mailing of the international search report

03/09/2004

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